IN THE CLAIMS

Claims 1-23 (Cancelled)

24. (Currently Amended) A method for signal evaluation of an electronic image sensor in the course of pattern recognition of the image content of a test body including;

dividing the image of said test body into a group of N x N grid-like windows each of the size on n x n pixels;

generating a multiple pixel output signal~~, said signal comprising a~~ representing image content in an n x n pixel window within [[said]] an N x N window of the image of said test body ~~having a size of n x n pixels~~;

analyzing the image content in one of said ~~window~~ n x n pixel windows by converting said output signal into at least one invariant characteristic value using at least one calculation specification in the form of a two-dimensional mathematical spectral transformation method selected from the group comprising a Fourier, Walsh, Hadamard or circular transformation;

defining two dimensional spectra from said image content;

calculating spectral amplitude values from these two-dimensional spectra and linking together said spectral amplitude values;

weighting said characteristic value with at least one indistinct affiliation function, said affiliation function being a functional connection with a value range of said characteristics value and a characteristic;

generating a higher order indistinct affiliation function by conjunctive linking of all of

said affiliation functions of said characteristic;

determining [[a]] one sympathetic value from said higher order affiliation function for each n x n pixel window, said sympathetic value defining a degree to which a characteristic in said image is similar to a reference characteristic;

comparing said sympathetic value with a threshold value; and

deciding a class affiliation for said signal from said comparison of said sympathetic value and said threshold value.

25. (Cancelled)

26. (Cancelled)

27. (Cancelled)

28. (Previously Presented) The method of claim 24 further including determining said sympathetic value using one of a main emphasis and a maximum method.

29. (Currently Amended) The method of claim ~~25 further including determining said sympathetic value using one of a main emphasis and a maximum method~~ 24, wherein converting said output signal into at least one invariant characteristic value includes generating an invariant spectrum, and wherein the invariant property is adjustable by using transformation coefficients..

30. (Previously Presented) The method of claim 24 further including dividing said method into a learning phase and a work phase, using said learning phase for defining and matching at least one of a parameter and a threshold value, and, in said work phase, evaluating said image context of the test body and evaluating said image using results from said learning phase.

31. (Previously Presented) The method of claim 25 further including dividing said method into a learning phase and a work phase, using said learning phase for defining and matching at least one of a parameter and a threshold value, and, in said work phase, evaluating said image context of the test body and evaluating said image using results from said learning phase.

32. (Previously Presented) The method of claim 24 further including providing a learning phase and using said learning phase for teaching said affiliation function.

33. (Previously Presented) The method of claim 24 wherein each said affiliation function is a unimodal function.

34. (Previously Presented) The method of claim 24 wherein each said higher order affiliation function is a multimodal function.

35. (Previously Presented) The method of claim 24 wherein at least one said affiliation function and said higher order affiliation function is a potential function.

36. (Previously Presented) The method of claim 24 further including generating said higher order affiliation function by processing partial steps of premise evaluation, activation and aggregation, wherein, in said premise evaluation, an affiliation value is determined for each IF portion of a calculation specification, wherein, in said activation, an affiliation function is fixed for each IF...THEN calculation specification, and wherein, during said aggregation, said higher order affiliation function is generated by superimposing all of said affiliation function formed during said activation.

37. (Currently Amended) A method for evaluation of a multiple pixel output signal of an electronic image sensor in the course of pattern recognition of the image context of an image of a test body including;

generating a multiple pixel image of said test body to be evaluated;

dividing said image to be evaluated into N x N grid-like windows each having a size of n x n pixels;

analyzing said image ~~context~~ content of one of said windows of said size of n x n pixels;

defining two-dimensional spectra from said image ~~contents~~ content; and

forming a spectral transformation of said two-dimensional spectra using a circular transformation to generate a spectrum having invariance properties that are adjustable by the use of transformation coefficients for said circular transformation.

38. (Cancelled)

39. (Cancelled)

40. (Previously Presented) The method of claim 37 further including performing said circular transformation using real coefficients.

41. (Previously Presented) The method of claim 37 further including forming associated work coefficients by combining spectral coefficients in groups.